

U.S. Patent Application No. 10/681,352  
Amendment After Final dated December 31, 2007  
Reply to Final Office Action of November 2, 2007

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1 - 24 (Canceled)

25. (Currently amended) A method for determining treatments for a cancer patient, comprising:

determining what amino acids are encoded by one or more of positions -21, -9, -6, -5, -4, 3, 9, 14, 19, 23, 26, 30, 37, 38, 45, 53, 55, 56, 57, 66, 67, 70, 71, 74, 77, 84, 85, 86, 87, 89, 90, 116, 125, 130, 140, 182, 197, 220, 221, and 224 of the HLA DQB1\* (Major histocompatibility complex, class II, DQ beta 1) gene of the patient;

determining what amino acids are encoded by one or more of positions -25, -24, -17, -16, -1, 9, 10, 11, 13, 14, 16, 25, 26, 28, 30, 31, 32, 33, 37, 38, 40, 47, 57, 60, 67, 70, 71, 73, 74, 77, 78, 85, 86, 96, 98, 104, 120, 133, 142, 166, 231, and 233, of the DRB1\* (Major histocompatibility complex, class II, DR beta 1) gene of the patient;

determining what amino acids are encoded by one or more of positions 8, 9, 11, 35, 36, 55, 56, 57, 65, 69, 76, 84, 85, 86, and 87, of the DPB1\* (Major histocompatibility complex, class II, DP beta 1) gene of the patient; and

determining a cancer treatment having a statistically significant probability of prolonging the cancer patient's survival, wherein the determination of a cancer treatment is based on the amino acids encoded at the positions of the HLA DQB1\* (Major histocompatibility complex, class II, DQ beta 1) gene, the DRB1\* (Major histocompatibility complex, class II, DR beta 1) gene, and the DPB1\* (Major histocompatibility complex, class II, DP beta 1) gene of the patient,

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wherein the cancer treatment comprises immunotherapy, chemotherapy, resection, or a combination thereof.

26. (Previously presented) The method of claim 25, wherein the cancer of the patient comprises stomach cancer.

27. (Withdrawn) A method for determining treatments for a cancer patient, comprising:

determining what amino acids are encoded by positions -9, 19, 26, 85, 89, 90, and 116 of the HLA DQB1 \*gene of the patient;

determining what amino acids are encoded by positions 14, 25, 47, and 78, of the DRB1 \*gene of the patient;

determining what amino acids are encoded by positions 9, 36, 55, 69, and 76, of the DPB1 \*gene of the patient; and

correlating the amino acids encoded at the positions with a cancer treatment having the greatest statically significant probability of prolonging the cancer patient's survival, wherein the cancer treatment comprises immunotherapy, chemotherapy, resection, or a combination thereof.

28. (Withdrawn) The method of claim 27, wherein the cancer patient comprises stomach cancer.